

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDWARD I. SUN, RAMIN HEYDARPOUR,
KARL JOSEPHY, JOHANNES SCHUT, ENG-PI CHANG,
and YAO-FENG WANG

Appeal 2007-0061
Application 09/531,978
Technology Center 1700

Decided: May 16, 2007

Before PETER F. KRATZ, CATHERINE Q. TIMM, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 56-69 and 76-87. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

I. BACKGROUND

The invention relates to labelstock including biaxially oriented multilayer film and an adhesive layer from which labels are die-cut. Biaxially stretch orienting the film increases its tensile modulus in both the machine direction (MD) and the cross direction (CD) (Specification 20:20-23). In the embodiments which are the focus of the claims, Appellants biaxially stretch the film so that the tensile modulus in the CD remains less than 150,000 psi, but the tensile modulus in the MD is higher than in the CD (Specification 21:1-15). The orientation due to stretching in the MD is greater than the orientation in the CD by at least about 10% (Specification 19:7-12). Claims 56 and 85 are illustrative of the subject matter on appeal:

56. An adhesive containing labelstock for use in adhesive labels which comprises

(A) a die-cuttable, biaxially oriented multilayer film comprising

(A-1) a base layer having an upper surface and a lower surface, and comprising polyethylene having a density of about 0.940 g/cm³ or less, a propylene polymer or copolymer, or mixtures thereof wherein the base layer is free of copolymers of ethylene with an ethylenically unsaturated carboxylic acid or ester, and

(A-2) a first skin layer of a thermoplastic polymer bonded to the upper surface of the base layer, wherein the tensile modulus of the multilayer film in the machine direction is greater than the tensile modulus in the cross direction, and the tensile modulus of the multilayer film in the cross direction is 150,000 psi or less, and

(B) an adhesive layer having an upper surface and a lower surface wherein the upper surface of the adhesive layer is adhesively joined to the lower surface of the base layer.

85. An adhesive containing labelstock for use in adhesive labels which comprises:

(A) A die-cuttable, biaxially stretch-oriented multilayer film comprising

(A-1) a base layer having an upper surface and a lower surface, and comprising polyethylene having a density of from about 0.940 g/cm³ or less, a propylene polymer or copolymer, or mixtures thereof wherein the base layer is free of copolymers of ethylene with an ethylenically unsaturated carboxylic acid or ester, and

(A-2) a first skin layer of a thermoplastic polymer bonded to the upper surface of the base layer, wherein the stretch-orientation of the multilayer film in the machine direction is greater than the stretch-orientation in the cross direction by at least 10%, and the tensile modulus of the multilayer film in the cross direction is 150.000 psi or less, and

(B) an adhesive layer having an upper surface and a lower surface wherein the upper surface of the adhesive layer is adhesively joined to the lower surface of the base layer.

The Examiner rejects claims 56-59, 61-69, 76-81, 83-87 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over JP 59-49971 as translated (Nagura). The Examiner rejects claims 60 and 82 under 35 U.S.C. § 103(a) as obvious over Nagura.

II. DISCUSSION

A. The Rejection of Claims 56-59, 61-69, 76-81, and 83-87 under § 102(b)/103(a)

The key limitations at the heart of the dispute between the Examiner and Appellants are the limitations on the stretch-orientation (as illustrated in claim 85) and the tensile modulus of the multilayer film (as illustrated in

claim 56). According to the Examiner, the difference in the tensile modulus between the machine direction (MD) and cross direction (CD) is not a structural difference in the multilayer film, it is merely a semantic difference. Therefore, according to the Examiner, Nagura meets the limitation because it includes a disclosure of a film with a tensile modulus (Young's modulus) of 103 kg/mm² (146,500 psi) in one direction and 180 kg/mm² (256,000 psi) in the other direction (Answer 4; see also Nagura, Example 1 at p. 15, ll. 3-8). The Examiner alternatively reasons that because of the well-known association of biaxial orientation with increasing strength and other expected results, it would have been obvious to have optimized it (Answer 4-5).

Appellants contend that the Examiner has not established anticipation because the directional constraints of the claims are not merely semantic differences, they represent a structural difference. The MD and CD are not interchangeable in labelstock (Reply Br. 2-3). Appellants further contend that the Examiner has not established obviousness because Nagura does not suggest optimizing the orientation and modulus properties of the claims, instead Nagura would have taught away from the claimed amounts (Br. 14).

The issues arising out of the contentions of the Appellants and the Examiner are (1) Has the Examiner reasonably interpreted claim 56 such that it encompasses a labelstock having a multilayer film of the claimed tensile modulus? and (2) Does a preponderance of the evidence support the Examiner's determination that the magnitude of biaxial orientation was a matter of routine optimization of a known variable in the artificial paper and label art, the result being predictable and therefore obvious?

With regard to the Examiner's claim interpretation, we agree with Appellants that it was in error. The claim is directed to an adhesive containing labelstock. As evidenced by Appellants' Specification and the prior art, labelstock is understood by those in the art as a running length of stock material including film and adhesive on a release liner, for instance, in roll form like a roll of tape. From the labelstock, labels are die-cut, waste material stripped away from the liner, and labels delivered by the liner to a dispensing point (Specification 30:25-32:14). There is a definite machine or lengthwise direction and cross or widthwise direction to labelstock. Nagura's use of the terminology lengthwise and widthwise also illustrates that those in the art understand these terms to refer to specific directions in the film. Nagura would not have used such terminology if it were not descriptive in the context of the imitation paper Nagura seeks to improve.

The Examiner did not reasonably interpret claim 56. Based upon the proper interpretation of the claim, Nagura contains no sufficiently specific description constituting an anticipation of the claimed subject matter. The only specific disclosure in Nagura of tensile moduli in different directions is in the examples, but in each case the lengthwise (machine direction) tensile modulus (Young's modulus) is lower than the widthwise (cross direction) modulus, i.e., it is the opposite of what is claimed, and in each case the widthwise modulus is higher than the claimed 150,000 psi (105 kg/mm²).

However, the obviousness analysis of the Examiner does not stand on the same footing as the anticipation analysis. Nagura does not specify any limits on either the orientation or modulus levels in the lengthwise direction (MD) or widthwise direction (CD) of the multilayer film. What Nagura discloses is a multilayer film made of oriented film 1 and oriented film 2

(Nagura, p. 3, ll. 1-7). Oriented film 1 is ordinarily biaxially oriented (Nagura, p. 3, ll. 14-15). Oriented polyolefin film 2 is at least uniaxially, but preferably, biaxially oriented (Nagura, p. 4, ll. 20-21). The multilayer film containing films 1 and 2 preferably has a tensile modulus (Young's modulus) of 300 kg/mm² or less, more preferably 200 kg/mm² (Nagura, p. 5, ll. 5-17), but again, no particular limits are set on the modulus in the lengthwise and widthwise directions. While the examples describe multilayer film biaxially oriented more lengthwise than widthwise, they are only examples.

Nagura does not place any particular significance on the respective levels of orientation and tensile modulus between the lengthwise and widthwise directions (MD and CD). That biaxial orientation was known in the art to increase film strength is not disputed (Answer 4; Br. and Reply Br. in their entirety; *see also* Specification 6:20-24). Biaxially orienting to obtain predictable properties would have been obvious to one of ordinary skill in the art. *Cf. Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1368, 82 USPQ2d 1321, 1335-36 (Fed. Cir. 2007) (discovery of an optimum value of a variable in a known process is usually obvious.) and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (“[I]t is not inventive to discover the optimum or workable ranges by routine experimentation.”). This is the kind of situation that requires Appellants to show secondary considerations such as unexpected results or criticality to overcome the *prima facie* case. *See In re Huang*, 100 F.3d 135, 139, 40 USPQ2d 1685, 1688 (Fed. Cir. 1996) (“This court and its predecessors have long held, however, that even though applicant's modification results in great improvement and utility over the prior art, it may still not be patentable if the

modification was within the capabilities of one skilled in the art, unless the claimed ranges "produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art." *quoting Aller*, 220 F.2d at 456, 105 USPQ at 235 and *citing In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed.Cir.1990)). Appellants do not here rely upon any convincing showing of secondary considerations.

Appellants contend that the examples of Nagura teach away from the claimed parameters. We do not agree because the examples are just that, examples, and there is a broader teaching of the general conditions within the reference. *See Aller*, 220 F.2d at 456, 105 USPQ at 235 ("where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation."). Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure. *In re Susi*, 440 F.2d 442, 446 n.3, 169 USPQ 423, 426 n.3 (CCPA 1971).

A preponderance of the evidence supports the Examiner's determination that the magnitude of biaxial orientation was a matter of routine optimization of a known variable in the artificial paper and label art, the result being predictable and therefore obvious to one of ordinary skill in the art at the time of the invention.

B. The Rejection of Claims 60 and 82 under § 103(a)

With respect to the rejection of claim 60, Appellants further contend that the Examiner's interpretation of Nagura with regard to the level of filler is incorrect (Br. 16). The Examiner finds that the absence of fillers from the base film 1 of Nagura is within the ordinary skill in the art (Answer 5). The issue is: Would it be within the skill of the ordinary artisan to remove the

filler from the base film 1 of Nagura based on the teachings of Nagura and the knowledge of one of ordinary skill in the art?

We answer yes. Nagura describes including 10-40 wt.% filler and states that if the content of the filler is less than 10 wt.%, white and opaque films cannot be obtained (Nagura, p. 4, ll. 1-5). When the white and opaque property were not desired, one of ordinary skill in the art would have eliminated the filler. As stated in *In re Larson*, 340 F.2d 965, 969, 144 USPQ 347, 350 (CCPA 1965), “[i]f this additional feature is not desired, it would seem a matter of obvious choice to eliminate it and the function it serves.”

With respect to the rejection of claim 82, Appellants further contend that the Examiner has not provided a suggestion in the reference to prepare the product by simultaneous biaxial orientation as claimed (Br. 17). However, we note that the claim is directed to a product. As such, it is the patentability of the product defined by the claim, rather than the process for making it that we must gauge in light of the prior art. *In re Wertheim*, 541 F.2d 257, 271, 191 USPQ 90, 103 (CCPA 1976); *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). Whether the multilayer film is oriented simultaneously or sequentially, it is reasonable to conclude the result is the same with regard to the end product structure. A suggestion in the prior art, much less a suggestion in the reference itself, is not required to support the Examiner’s determination of obviousness with regard to claim 82.

III. DECISION

Based on the obviousness rationales of the Examiner, we AFFIRM the decision of the Examiner.

IV. TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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